

## Case story

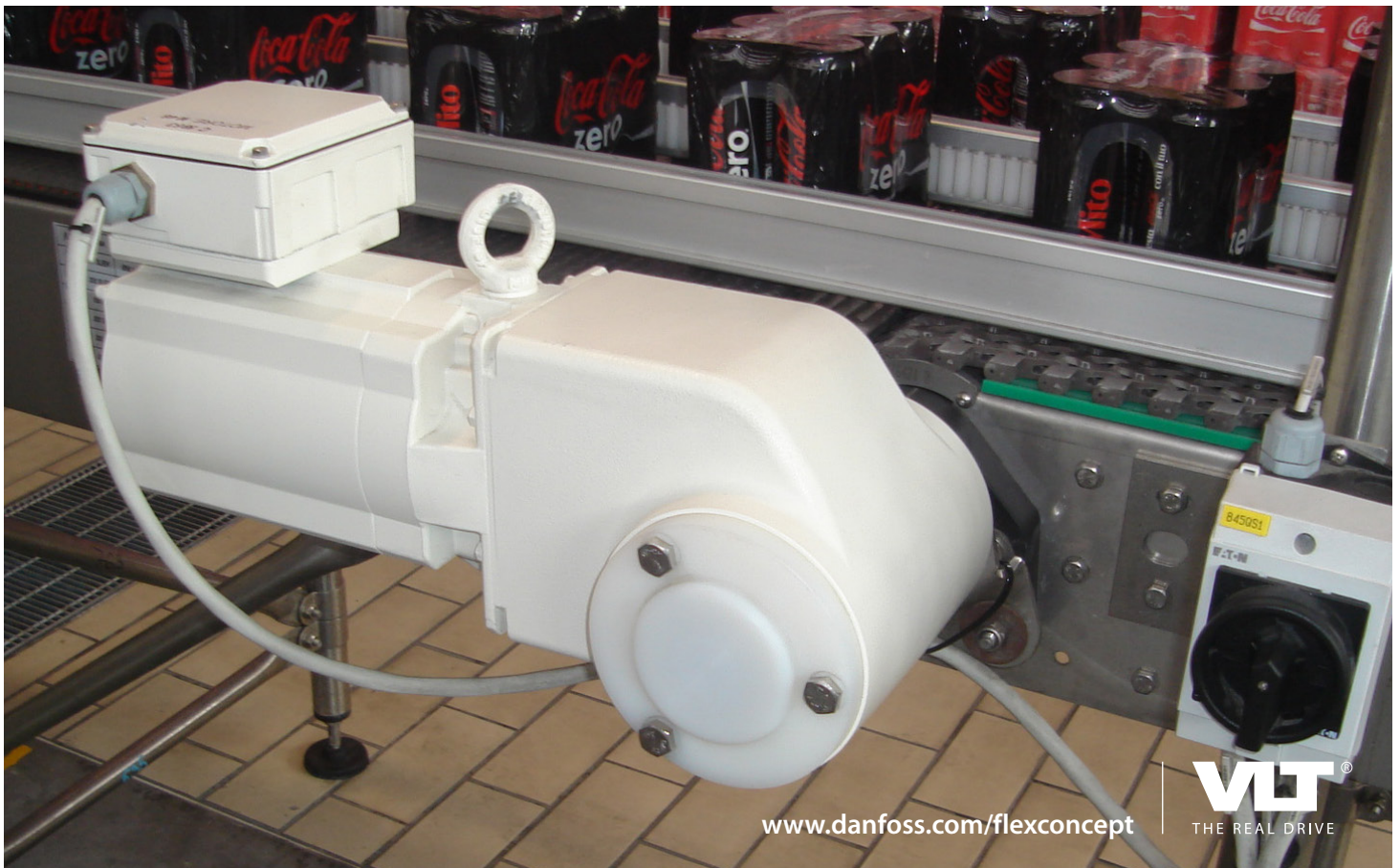
# Bottling company cuts energy consumption by 20% with VLT® FlexConcept®

**New 12 million Euro can filling line at Sicily based Sibeg uses Danfoss VLT® FlexConcept® to save energy, increase efficiency and achieve a payback time of less than 18 months.**

Sibeg is the approved Sicilian bottling company that handles the production and marketing of The Coca-Cola Company drinks in the Sicily regions. A forerunner within energy efficient production, the company has spent more significant amounts of money in recent years on modernizing its production site in Catania. Today, the plant is a world class example of how to achieve deep industrial integration, production autonomy and efficiency. All with a firm eye on reducing environmental impact.

In January 2013 Sibeg opened its new can filling line with a capacity of 60,000 cans per hour. This is equivalent to eight million cases of 24 cans in 150, 330 and 500 milliliter sizes each year. The total investment in the line is in the region of 12 million Euros.

More than 60 high efficiency drive systems, consisting of Danfoss VLT® AutomationDrive FC 302 drives and VLT® OneGearDrive® geared motors, have been installed on the line to ensure energy efficient operation. The Danfoss solution belongs to the company's VLT FlexConcept, which offers dedicated, energy efficient drive and motor solutions for the food and beverage industry.



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*Efficient conveyor control with VLT® OneGearDrive® and VLT® AutomationDrive FC302*

## Ten year partnership

The partnership with Danfoss was based on Sibeg's goal to secure a stable, high quality platform. In this respect Danfoss was no stranger. Sibeg has used VLT® drives for more than ten years.

"The collaboration we have with Danfoss was decided on the grounds of continuity, as Sibeg already has a significant Danfoss installation. The new VLT® FlexConcept® drive solution has confirmed Danfoss as the market leader in the beverage sector," says Riccardo Greco, Technical Manager at Sibeg.

## IE4 efficiency system

Equally as important as a stable partnership, the solutions that are installed in Sibeg's plants must also meet the company's demands with respect to efficiency.

An energy study that was carried out during the project revealed that VLT FlexConcept could save 20% energy and achieve a higher energy class rating, compared to a traditional drive solution using an IE2 motor. The overall energy efficiency of the Danfoss solution is 90%, which in part is due to the 96% efficiency of the permanent magnet motor in VLT® OneGearDrive®.



Danfoss offered us a solution towards energy savings thanks to the system's IE4 efficiency. This not only exceeds the current standard, but is also capable of satisfying future legislative developments for at least ten years

Riccardo Greco,  
Technical Manager,  
Sibeg



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## Less than 18 months' payback

The high efficiency of the FlexConcept system means that the energy savings alone will result in a payback time of only 18 months. But, in fact, this is only the beginning.

The OneGearDrives feature a EHEDG certified hygienic design, which reduces the time spent on cleaning

by 40%. This is largely due to the completely smooth IP67 and IP69K enclosures. Maintenance costs can also be reduced significantly, as the lubricating oil in the OneGearDrive only needs to be changed every 35,000 working hours. In other words, once every 7 years in a typical plant. The rest of the time the motor is completely maintenance free.

Last, but not least the Danfoss FlexConcept also helps to reduce warehousing costs. The two reduction ratios of the OneGearDrive make it possible to cover 62 applications, as both variants have the same

dimension. Likewise, only two types of inverter were sufficient for the entire line. This means that warehouse space can be saved, without risking a lengthy plant shutdown in the event of replacements.

## Project at a glance

- **Application:**  
Can filling line
- **Solution:** 60 VLT® Flex-Concept® systems: VLT® AutomationDrive FC 302, VLT® OneGearDrive®
- **Special features:** EHEDG certified, IE4 efficiency

## About Sibeg

Sibeg is the authorized Sicilian bottler in charge of the production and marketing of The Coca-Cola Company drinks and of all activities of marketing and advertising in the region of Sicily, actively contributing to the maintenance and development of Coca-Cola brand products.

[www.sibeg.it](http://www.sibeg.it)





# What VLT® is all about

Danfoss VLT Drives is the world leader among dedicated drives providers – and still gaining market share.

## Environmentally responsible

VLT® products are manufactured with respect for the safety and well-being of people and the environment.

All frequency converter factories are certified according to ISO 14001 and ISO 9001 standards.

All activities are planned and performed taking into account the individual employee, the work environment and the external environment. Production takes place with a minimum of noise, smoke or other pollution and environmentally safe disposal of the products is pre-prepared.

## UN Global Compact

Danfoss has signed the UN Global Compact on social and environmental responsibility and our companies act responsibly towards local societies.

## Impact on energy savings

One year's energy savings from our annual production of VLT® drives will save the energy equivalent to the energy production from a major power plant. Better process control at the same time improves product quality and reduces waste and wear on equipment.

## Dedicated to drives

Dedication has been a key word since 1968, when Danfoss introduced the world's first mass produced variable speed drive for AC motors – and named it VLT®.

Twenty five hundred employees develop, manufacture, sell and service drives and soft starters in more than one hundred countries, focused only on drives and soft starters.

## Intelligent and innovative

Developers at Danfoss VLT Drives have fully adopted modular principles in development as well as design, production and configuration.

Tomorrow's features are developed in parallel using dedicated technology platforms. This allows the development of all elements to take place in parallel, at the same time reducing time to market and ensuring that customers always enjoy the benefits of the latest features.

## Rely on the experts

We take responsibility for every element of our products. The fact that we develop and produce our own features, hardware, software, power modules, printed circuit boards, and accessories is your guarantee of reliable products.

## Local backup – globally

VLT® motor controllers are operating in applications all over the world and Danfoss VLT Drives' experts located in more than 100 countries are ready to support our customers with application advice and service wherever they may be.

Danfoss VLT Drives experts don't stop until the customer's drive challenges are solved.

